

REMARKS

Claims 1-8 and 10-30 are pending. By this Amendment, claim 25 is amended, and claims 26 and 27 have been withdrawn.

Applicants appreciate the Office Action's indication that claims 11-13, 23 and 24 contain allowable subject matter.

I. The Claims Define Patentable Subject Matter

The Office Action rejects claims 25, 28 and 30 under 35 U.S.C. §102(b) over JP-11354169 to Kobayashi et al. This rejection is respectfully traversed.

Kobayashi does not disclose a titanium dioxide semiconductor having a fractal structure as recited in independent claim 25. Instead, JP' 169 discloses through-holes or openings 6 in a titanium oxide film. The openings or pores 6 of JP' 169 do not constitute a fractal structure.

The Office Action rejects claims 1-8 and 10 under 35 U.S.C. §103(a) over U.S. Patent 5,482,570 to Saurer et al. in view of JP' 169. This rejection is respectfully traversed.

The Office Action recognizes that Saurer does not disclose the titanium dioxide semiconductor having a fractal structure and defining a surface and an interior. Applicants respectfully disagree with the Office Action's assertion that JP' 169 provides the deficiencies of Saurer.

Specifically, the pores 6 of JP' 169 do not constitute a fractal structure. Furthermore, Applicants submit that JP' 169 teaches away from Saurer. Specifically, in Fig. 5, Saurer discloses colloidal particles 20 incorporated into the first layer 14. In contrast, JP' 169 discloses openings or pores 6. In other words, there is no material introduced into the pores, which is the opposite of Saurer. Thus, one could not have been motivated to combine the respective features of Saurer and JP' 169.

The Office Action rejects claims 14-22 under 35 U.S.C. §103(a) over Saurer in view of JP' 169 and further in view of U.S. Patent 6,084,176 to Shiratsuchi et al. This rejection is respectfully traversed.

Claims 14-22 depend from claim 1. As discussed above, claim 1 defines patentable subject matter. Therefore, claims 14-22 also define patentable subject matter.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-8 and 10-30 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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